

SAF-RC-001

Industrial Hygiene Sampling

FINAL DATA

NO DISTRIBUTION REQUIRED

COMMENTS:

SDG 05I-4491-02 SAF-RC-001

Rad only ☒ Chem only ☒ Rad & Chem

X Complete Partial

300 Area 333 Bldg

RECEIVED
MAR 29 2006
EDMC

Report Identification Number: 05I-4491-02
 Subcontract Number: 0000X-BO-G0058-B-Mod#4
 Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby
 Laboratory Identification Number: DCHM
 SAF#: RC-001 / H300XX J451
 Payroll#: 73337



Sample Information

Sample Date	Customer Sample Number	Laboratory Sample Number	Method	Analytical Batch Identification	Sample Matrix
27 Oct 2005	J10BN2 - A	05I42398	NMAM 7300M	G05B9008	MCE
27 Oct 2005	J10BJ1 - A	05I42399	NMAM 7300M	G05B9008	MCE
27 Oct 2005	J10BJ0 - A	05I42400	NMAM 7300M	G05B9008	MCE
27 Oct 2005	J10BN3 - A	05I42401	NMAM 7300M	G05B9008	MCE

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Name: Lisa M. Reid
 Title: Chemist
 Date: November 11, 2005



Case Narrative Page

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General Set Information: There are 4 samples in set 05I-4491-02 that were analyzed for cadmium on MCE filter. No problems were encountered with the receipt of these samples and no contact with the CTR was required.

Method Summary: Samples were transferred to 50 ml centrifuge tubes and digested in the presence of 10 mL of 1:1 (v/v) nitric acid. Samples were digested in a hot block set at 110°C for 40 minutes. Samples were then diluted to a 25 mL volume with ASTM Type II Water. Samples were shaken and delivered for ICP analysis.

Sample Preparation: All samples were prepared in accordance with DCL SOP "IH-AN-021" and NIOSH method NMAM 7300 modified for hot block digestion.

Holding Times: The holding times were met for both sample preparation and analysis.

Instrument Calibration: Instrument calibration was performed in accordance with NIOSH method NMAM 7300.

Initial and Continuing Calibration Verification Analysis: Cadmium recoveries in all Initial Calibration Verification (ICV) and Continuing Calibration Verification (CCV) samples are within the quality control limits of $\pm 10\%$.

Initial and Continuing Calibration Blank Analysis: No cadmium results were found in the Initial Calibration Blank (ICB) or Continuing Calibration Blanks (CCB) at levels above the Limit of Quantitation (LOQ) of 0.06 ug/sample.

Method Blank Analysis: No cadmium was found in the media blank sample above the Contract Required Detection Limit (CRDL). No lead was found in the media blank sample above the Contract Required Detection Limit (CRDL).

Dilution(s): NA.

Laboratory Control Sample and Duplicate Analysis: These samples were relogged for cadmium analysis after beryllium analysis was completed. The LCS/LCSD samples were not reanalyzed. The beryllium LCS/LCSD recoveries were within the control limits of 20%.

Replicate Analysis: One sample in this batch was replicated. The RPD between the sample and the replicate were within the control limit of 20%. If the result of the sample or replicate is below the CRDL, replicate analysis is negligible.

Flagging Codes: None

Nonconformance/Corrective Action Report (NC/CAR): N/A

Sample Calculation: The final results are calculated by the following equation:

Final result for aqueous samples ($\mu\text{g/sample}$) = (A) x (B) x (C)

Where:

A = Analyte concentration from instrument determination ($\mu\text{g/L}$)

B = Concentration factor from sample preparation

= $\frac{\text{Final Volume of Digestate (L)}}{\text{Sample}}$

C = Dilution performed at time of analysis

Example Calculation: $(1 \mu\text{g/L}) \times (0.025 \text{ L/sample}) \times (1) = 0.025 \mu\text{g/sample}$

Miscellaneous Comments: None.



Report Page

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SAF#: RC-001 / H300XX J451

Payroll#: 73337

Customer Sample Number	Laboratory Sample Number	Date Analyzed	Cadmium µg/sample		Cadmium µg/m ³		Air Volume L	
J10BN2	05I42398	10 Nov 2005	<0.06	U	**		0.	
J10BJ1	05I42399	10 Nov 2005	<0.06	U	**		0.	
J10BJ0	05I42400	10 Nov 2005	<0.06	U	<0.20		302.	
J10BN3	05I42401	10 Nov 2005	<0.06	U	<0.21		287.	
Limit of Detection (LOD)			0.06					
Required Detection Limit (RDL)								

U - Parameter not detected above LOD.

J - Parameter between LOD and RDL.



QC Summary Page

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Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby
Laboratory Identification Number: DCHM
SAF: RC-001 / H300XX J451
Payroll#: 73337

Batch ID: G05B9008

QC Sample ID	QC Type	Analyte	Units	Result	Parent Result	Target	Percent Rec.	Relative Percent Diff.
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MB - Method Blank

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MSD - Matrix Spike Duplicate

LD - Laboratory Duplicate

NA - Not Applicable

ND - Parameter not detected above LOD

$LCS, LCSD \text{ Percent Rec.} = (\text{Result} / \text{Target}) * 100.0$

$MS, MSD \text{ Percent Rec.} = ((\text{Result} - \text{Parent}) / \text{Target}) * 100.0$

$LCS, LCSD \text{ Relative Percent Diff.} = ((|LCS - LCSD|) / ((LCS + LCSD)/2.0)) * 100.$

$MS, MSD \text{ Relative Percent Diff.} = ((|MS - MSD|) / ((MS + MSD)/2.0)) * 100.$

$LD \text{ Relative Percent Diff.} = ((|Parent - LD|) / ((Parent + LD)/2.0)) * 100$

05I-4491-01



CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST										
Collector: David Warren		Company Contact: Denise A. Pitts and Henry W. Ruby		Telephone No.: 531-1229		Project Coordinator: Joan H. Kessner		Data Turnaround: 24 hrs.		
Payroll #: 73357		Sampling Location: 300 Am/ 333 Bldg.		SPECIAL INSTRUCTIONS All relevant COAs must be provided: A300 x x J451 ANALYSIS METHOD (SPECIFIC): N100 7300 Be			SAF No. RC-001		Method of Shipment: Federal Express	
Type of Sample: Beryllium		Shipped To: Detachen Salt Lake City UT					Wipe Sample Media: Ghost <input type="checkbox"/> Yes <input type="checkbox"/> No Other: N/A		Bill of Lading/Air Bill No.: 854193375237	
POSSIBLE SAMPLE HAZARD/REMARKS: Re		MATRIX: A - AIR WI - WIPE X - OTHER		Preservation (i.e., cooling required, etc.):		No	No	No	No	No
Special Handling and/or Storage: N/A						No	No	No	No	No
SAMPLE ANALYSIS					Asbestos Airborne	Lead Airborne	Beryllium Airborne	Beryllium Wipe	Mold	
SAMPLE NO.	MATRIX	SAMPLE DATE	VOLUME (L) or Area (cm ²)	Comments						
J108N2-A	A	10/27/05	N/A	Blank	10/27/05			X		05I-42348 99 400 01
J108J1-A	A	↓	N/A	Blank				X		
J108J0-A	A	↓	302	personal				X		
J108N3-A	A	10/27/05	287	personal				X		

Enter on line below the first Sample Number from Page One:

J10BN2

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			
SIGN / PRINT NAMES / USE MILITARY TIME			
Relinquished By/Sign:	DATE/TIME	Received By/Sign:	DATE/TIME
<i>[Signature]</i> Daniel Wolf	10/27/05 1400	3746 Aldy, Room 16, Locked Cabinet	10/27/05 1400
Relinquished By/Sign:	DATE/TIME	Received By/Sign:	DATE/TIME
David Warren / <i>[Signature]</i> David Warren	10-27-05/1455	David St John <i>[Signature]</i> David St John	10/27/05 1455
Relinquished By/Sign:	DATE/TIME	Received By/Sign:	DATE/TIME
David St. John WCH <i>[Signature]</i> David St John	10/31/05 0900	Fed Ex	
Relinquished By/Sign:	DATE/TIME	Received By/Sign:	DATE/TIME
Fed Ex	11-1-05 10:00	Heather Tanyon <i>[Signature]</i> Heather Tanyon	11-1-05 10:00
Relinquished By/Sign:	DATE/TIME	Received By/Sign:	DATE/TIME
Heather Tanyon Met 3 <i>[Signature]</i> Heather Tanyon	11-1-05 10:00		
Relinquished By/Sign:	DATE/TIME	Received By/Sign:	DATE/TIME
Relinquished By/Sign:	DATE/TIME	Received By/Sign:	DATE/TIME
Relinquished By/Sign:	DATE/TIME	Received By/Sign:	DATE/TIME
Relinquished By/Sign:	DATE/TIME	Received By/Sign:	DATE/TIME
LABORATORY SECTION	Received By	Title	DATE / TIME

REVIEWED BY:

[Signature]
PRINT/SIGN NAME

DATE:

11-1-05